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REMARKS

Figures 1a, 1b, 4, 5, 6, 7, 8, 9a, 9b, 10, 11 and 12 of the Drawings have been amended to include some reference signs already illustrated in some other Figures of the Drawings. No new subject matter has been added.

The abstract of the disclosure and the disclosure have been amended to conform the same to the amended claims, to improve the idiom and clarity, and to correct typographical errors. No new subject matter has been added.

More specifically, the reference sign "34" shown in Fig. 3c as originally filed has been incorporated into the disclosure.

Also, for clarity purposes, the word "counterweight" has been replaced by -- weight -- since it is a weight used to lift an object attached to the system rather than a counterweight usually used to balance the mass of a suspended object, as it would be obvious to one having skill in the art. The weight (5) has a mass sufficient for lifting any object with a mass smaller than a predetermined mass, as opposed to a counterweight that would need to have a predetermined mass depending on the suspended object to balance the mass thereof. With a counterbalance, either an operator or an external actuator is needed to displace the suspended object, as opposed to the present invention in which the weight itself is the actuator used to lift the object. (Emphasis added)

More specifically, from the Webster's Dictionary (second edition, 1997), a **counterweight** is "*a weight used as a counterbalance*"; and a **counterbalance** is "*a weight balancing another weight*" or "*an equal power or influence acting in opposition*"; which is not the case at all for the weight (5) of the present invention.

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The claims 9-13, 15-19, and 34-36 have been amended to overcome the Examiner's rejections under 35 U.S.C. 103(a) and to improve the idiom, and new claims 43-48 have been added. No new subject matter has been added.

As required under 37 C.F.R. 1.121 enclosed herewith on separate pages is a marked up version of the above amended paragraphs and claims.

Rejection under 35 U.S.C. 103(a)

Reconsideration of the rejection of claims 9, 11-18, 34 and 35 under 35 U.S.C. 103(a) as being unpatentable over Sawers (US Pat. 536,399) in view of Falkenau et al. (US Pat. 560,125) is respectfully requested for the following reasons.

Re claim 9: Neither Sawers nor any other cited reference discloses or even suggests a system for lifting and moving an object from one point to another and comprising: (a) a partially hollow post having a generally vertical axis thereof; (b) a weight disposed within the post; (c) a weight displacement system for longitudinally and upwardly displacing the weight relative to the post; (d) a lateral arm rotatably connected to the post for rotation about said vertical axis and including a proximal end located near the post and a distal end located away from the post; (e) a cable having one end attached to the weight and the other end attached to the distal end of the lateral arm; (f) a carriage connecting to the cable; (g) a carriage displacement unit for longitudinally displacing the carriage relative to the lateral arm; and (h) an object attachment member connecting to the cable for attaching the object thereto, the weight having a mass sufficient to lift the object supported by the cable when being downwardly displaced by gravity relative to the post. (Emphasis added)

Furthermore, Sawers' apparatus does not disclose or even suggest any weight with a mass sufficient to lift the filled cages (12) when longitudinally displaced down within the hollow vertical mast (2-6) under gravity. Also, fluid pressure is supplied to push a piston down within its cylinder (1), which is a

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dynamic object lifting means using an external source of power and not too safe since a high pressure could inadvertently overload the structure of the apparatus that could collapse, as opposed to the static object lifting means of the present invention in which the maximum load that can be lifted by the system is determined by the mass of the weight which is an integral part of the system. Moreover, each cable (11) of Sawers' apparatus has one end attached to the cage (12) (object) as opposed to the distal end of the lateral arm (7) in the present invention. Also, the rotation range of the arm (7) with the vertical mast (6) is somewhat limited because of the pipe (25) supplying the fluid pressure to the main (1) and secondary (17) cylinders, as opposed to the present invention in which the rotational range of the arm is unlimited and unobstructed by any structure such that the arm is allowed to travel as many complete 360 rotations as required without any need to be rotated backward. (Emphasis added)

Falkenau et al. teach a fixed structure machinery using downwardly pushed piston, under fluid pressure, to dynamically raise an object as opposed to the static means of the present invention. (Emphasis added)

Consequently, it is respectfully believed that it would not have been obvious at all to one of ordinary skill in the art at the time Applicant's invention was made to modify the support of Sawers by providing the lateral arm with rails mounted on a complex large and heavy structure for supporting a also complex moving trolley, to have the load positionable along the arm, as taught by Falkenau et al., and come up with a simple and relatively light system for lifting and moving an object from one point to another as claimed hereinabove.

Re claims 11-18, 34 and 35: Amended dependent claims 11-18, 34 and 35 are respectfully believed to patentably distinguish the invention over the prior art cited by the Examiner for the similar reasons set out hereinabove with respect to claim 9, since they respectively depend thereon.

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Reconsideration of the rejection of claims 9, 11, 12, and 34-36 under 35 U.S.C. 103(a) as being unpatentable over Tremper (US Pat. 3,899,963) in view of Garner et al. (US Pat. 3,531,963) is respectfully requested for the following reasons.

Re claim 9: Neither Tremper nor any other cited reference discloses or even suggests a system for lifting and moving an object from one point to another as claim in hereinabove amended claim 9. In fact, Tremper does not teach or even suggest any lifting system (Tremper's apparatus is in the art of strap chutes), and does not disclose that its overhead superstructure (54) or arm rotates about the column assembly (20). Furthermore, Tremper teaches the use of a counterweight to balance the weight of the strapping tool (50) suspended from the superstructure (54) as opposed to the present invention in which the weight has a mass sufficient to lift (not balance) the object. Moreover, Tremper does not disclose or suggest any weight displacement system to move upwardly the weight relative to the post; a vertically oriented force provided by an operator on the tool (50) cannot be considered as being inherently similar to an external system since the whole purpose of a lifting system is to use an external system to lift objects rather than an operator's bare hands. (Emphasis added)

Similarly, Garner et al. do not teach or even suggest any lifting system (Garner et al.'s apparatus is in the art of bending apparatuses). Furthermore, Garner et al. teach the use of a counterweight (28) to balance the weight of the bending tool (10) suspended from the overhead suspension boom (20) as opposed to the present invention in which the weight has a mass sufficient to lift (not balance) the object. Moreover, Garner et al. do not disclose or suggest any weight displacement system to move upwardly the weight relative to the post; a vertically oriented force provided by an operator on the tool (10) cannot be considered as being inherently similar to an external system since the whole purpose of a lifting system is to use an external system to lift objects rather than an operator's bare hands (refer to the disclosure col. 2, line 70 to col. 3, line 2 and to Fig. 1). Furthermore, Garner et al. do not teach that the overhead boom

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(20) rotates about the axis of the upright boom support (22) at the upper portion thereof. Even though the upright boom support (22) may rotate at its base, it would not be a continuous rotation because of the presence of an electrical wire or the like to feed the hydraulic pump (52). (Emphasis added)

Consequently, it is respectfully believed that it would not have been obvious at all to one of ordinary skill in the art at the time Applicant's invention was made to modify the support of Tremper by providing the lateral arm (54) with rails for supporting a moving trolley, to have the load positionable along the arm, as taught by Garner et al., and come up with a system for lifting and moving an object from one point to another as claimed hereinabove.

Re claims 11, 12, and 34-36: Amended dependent claims 11, 12, and 34-36 are respectfully believed to patentably distinguish the invention over the prior art cited by the Examiner for the similar reasons set out hereinabove with respect to claim 9, since they respectively depend thereon.

Reconsideration of the rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over Tremper (US Pat. 3,899,963) in view of Garner et al. (US Pat. 3,531,963), and further in view of Campbell et al. (US Pat. 3,658,187) is respectfully requested for the following reasons.

Re claims 10: Amended dependent claim 10 is respectfully believed to patentably distinguish the invention over the prior art cited by the Examiner for the similar reasons set out hereinabove with respect to claim 9, since it depends thereon.

Reconsideration of the rejection of claim 13-19 under 35 U.S.C. 103(a) as being unpatentable over Tremper (US Pat. 3,899,963) in view of Garner et al. (US Pat. 3,531,963), and further in view of Takao (JP Publication 09317807) is respectfully requested for the following reasons.

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Re claims 13-19: Amended dependent claims 13-19 are respectfully believed to patentably distinguish the invention over the prior art cited by the Examiner for the similar reasons set out hereinabove with respect to claim 9, since they respectively depend thereon.

It is to be noted that Takao discloses a vacuum spring (20) to dampen the raising motion of a small portion (16) of a counterweight (14+16) used to balance a specific stirrer mass of 40 kg, which is totally different than the present invention in which the fluid pressure (gas or liquid) below the weight (5) is used to move that weight (5) up inside the post (2) to lower the object. (Emphasis added)

New dependent claims 43-48 are respectfully believed to patentably distinguish the invention over the prior art cited by the Examiner for the similar reasons set out hereinabove with respect to claim 9, since they respectively depend thereon. All features claimed in any of claims 43-48 are fully inferred and supported by the disclosure as originally filed.

It is respectfully submitted that when the rejection of the claims is reviewed in light of Applicant's arguments, the invention without a doubt should be considered patentably distinguished over the currently applied references. It is now believed the above application, including amended claims 9-19, 34-36 and new claims 43-48, is in order for Allowance over the art cited by the Examiner and such action would be appreciated.

Amended claims 9-19, 34-36 and new claims 43-48 do read on the previously elected species, and amended claims 9-12 and 34-36 and new claims 43 and 45-48 still appear to be generic. It is respectfully emphasized that withdrawn claims 20-23 refer to a "liquid displacement means" which, when compressed, performs exactly the same way as pressurized gas or air does to lift the weight from underneath, as it would be obvious to one skilled in the art. In

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the opposite, any uncompressed liquid means that would be located above the weight to act as additional weight, as any solid means would do, is respectfully believed to be different and withdrawn from further consideration.

Request for Constructive Assistance

The undersigned has made a diligent effort to respond to the Office Action. If for any reason the claims of this application are not believed to be in full condition for allowance, applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP 707.07(j) or in making constructive suggestions pursuant to MPEP 706.03(d) in order that this application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,

By *Francois Delaney*
Francois DELANEY, Applicant

Encl. - Petition for Extension of Time (1 month) with fee payment authorization form.
- New Formal Figures 1a, 1b, 4-8, 9a, 9b, and 10-12 of the Drawings.
- Pending version of Figures 1a, 1b, 4-8, 9a, 9b, and 10-12 of the Drawings with modifications highlighted in red by hand.

U01

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

The modifications are shown by underling (xxx) and strikethrough and square brackets ([xxx]) for added and deleted matter, respectively; short vertical lines on the right hand side of the page indicate lines with modification(s).

IN THE ABSTRACT:**Amended abstract of the disclosure:**

– A system for lifting and moving an object includes [comprising] a vertical post (2), having a lifting arm (38) rotatably connected thereto for rotation about a vertical axis thereof. The [pivotably mounted thereon. Said] vertical post includes a weight [comprising a piston] (5) acting as a piston connected to a carriage (50) slidably mounted on the [said] lifting arm, such that operation of the [said] piston can lower and raise the [said] object. –

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IN THE DESCRIPTION:

Amended full description:

— **SYSTEM FOR LIFTING AND MOVING AN OBJECT**

CLAIM OF PRIORITY

This application claims priority under 35 USC § 119(e) to U.S. Patent Application Serial No. 60/268,300, filed on February 13, 2001, the entire contents of which are hereby incorporated by reference.

Technical Field

The invention relates to apparatuses for lifting objects and displacing them from one location the other.

Background Art

Many apparatuses for lifting and moving objects from one location to the other are known. Various apparatuses used to lift abject and displace them from one location to the other using lateral arms and counter weights are known. See for example Japanese Patent Application of Motoda published under no. 06126664. Other known apparatuses used hydraulic or pneumatic pistons connected to lateral arms using pulleys. See for example US Patents 536,399 (Sawers), 560,125 (Falkenau et al.), 700,162 (Wiley), 2,446,488 (Pierce), 2,476,192 (Hall), 2,562,066 (Scott et al.), PCT Application no. WO98/15487 (Vestin), European Patent Application published under no. 0 254 840 (Gebauer), German Patent 30 02 577 (Shrouder et al.), German Patent 29 18 010 (Häring), Russian Patent 1,781,156 and French published application no. 2,764,591 (Foillard et al.). However, they are cumbersome to use and costly to manufacture.

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Summary of the Invention

This apparatus has three distinct objects:

- a) Cancel the mass [weight] of an abject to be lifted by a [counter]weight;
- b) Allow the operator to lift and lower an abject with ease; and
- c) Move an object with a radius between two to 12 feet at 360 degrees.

It is impossible to abuse or break this equipment due to the fact that it can only lift an object using 99% of the mass of the [counter]weight. Friction of mechanical elements is the reason for the 1% loss.

Using the supporting post as the compression chamber allows 360 degree continuous movement.

The proximity [closeness] of the two pulleys of the carriage supporting the object attachment member via the cable induces a braking [~~carriage system produces a braking~~] effect in the event the operator would try to raise the object [~~counterweight~~] too high because of the local angle provided to the cable between each pulley and the object attachment member.

The invention relates to a system and apparatus to lift and move an abject from one location to another, composed of:

- a. [A] a partially hollow [vertical] post having a generally vertical axis;
- b. [A-counterweight] a weight disposed within said post;

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- c. a weight displacement system for longitudinally and upwardly displacing the weight relative to said post; [First means allowing the counterweight to move vertically.]
- d. a lateral arm rotatably connected to said post for rotation about said vertical axis and including a proximal longitudinal end located near said post and a distal longitudinal [A lateral arm pivotally held to said vertical post and comprising the first proximal end located near said post and a second distal] end located away from said post;
- e. [A] a cable having one end attached to said [counter]weight and the other end attached to said distal end of the lateral arm;
- f. [A] a carriage connecting to [supporting] said cable;
- g. a carriage displacement unit for longitudinally displacing the carriage relative to [Second means allowing the longitudinal displacement of the carriage along] said lateral arm; and
- h. an object attachment member connecting to said cable for attaching the object thereto, said weight having a mass sufficient to lift the object supported by said cable when being downwardly displaced by gravity relative to said post. [Means to support said load attached to said cable].

Brief description of the drawings

Figure 1a is a perspective view of a lifting system in accordance with the invention;

Figure 1b is a top view of the system shown in figure 1a;

Figure 1c is a detailed view of the portion of figure 1a shown in "D";

Figure 2 is a detailed view of the portion of figure 3a shown in "B";

Figure 3a is a partial cross-section of the system along line A-A in figure 1b;

Figure 3b is a detailed cross-sectional view of the portion of figure 3a shown in "C";

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Figure 3c is a partial cross-sectional side view of the base of the system shown in figure 1a;

Figure 4 is another perspective view of a lifting system in accordance with the invention;

Figure 5 is a detailed view of the portion of figure 4 shown in "E";

Figure 6 is another partial view of the portion of figure 4 shown in "E" with sections taken out;

Figure 7 is a perspective view of a pulley sub-system of the carriage for use with a system in accordance with the invention;

Figure 8 is another perspective view of a pulley sub-system shown in figure 7 in which a portion of the pulley housing of the attachment block has been removed;

Figure 9 is a perspective view of an arm sub-system for use with a system in accordance with the invention;

Figure 9b is a perspective view of a base for use with a system in accordance with the invention;

Figure 10 is a perspective view of a cable sub-system for use with a system in accordance with the invention;

Figure 11 is a partial perspective view of a pulley sub-system for use with a system in accordance with the invention; and

Figure 12 is a [another] partially broken section [perspective] view of an arm rotating joint [a pulley sub-system] for use with a system in accordance with the invention.

Description of a preferred embodiment

The apparatus consists in an arm or rail (38) fastened to the top of a post (2). For example, the rail (38) may be 12 foot long steel rail and the post may be a cylindrical steel post having an 8 inch diameter. The height of the post is selected in accordance with the limitation of the work area (for example 8 to 12 feet in height).

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A [counter]weight (5) is disposed inside the hollow post (2) in such a way that it may be raised and lowered within the post. Sealing means (6), such as joints or o-rings, are disposed around the [counter]weight so as to seal the space between the [counter]weight and the interior of the post. The sealing means are preferably provided with an opening to allow a predetermined flow of air or gas to pass therethrough.

The rail (38) is fastened to the post (2) with the use of a rotating joint (40), or arm connecting system, which allows its unlimited and unobstructed continuous [a] 360°, and more, movement around the post about the post axis.

A hole is provided in the rotating joint (40) to allow the free movement of a cable (29) while the [counter]weight (5) rises or lowers. As shown in figures 2, 10, 11 and 12, the rotating joint (40) is located in the center of a cover (35) attached to the top of the post (2). Cable (29) passes through a guide (24) and around a pulley (41) which turns around an horizontal axis (20). A bearing (42) is disposed between guide (24) and support cylinder (21) which is fixed to the rail (38) by bolts (23) or other known means. A spacer (22) is disposed between cover (35) and support (21).

The rail (38) is supported by two elongated supports or braces (26) having one longitudinal end fixed to the rail (38) and the opposed longitudinal end attached by bolts or other known means to a rolling block (27). The rolling block (27) can move laterally in a tangential direction on the outside of the post (2) with the help of two bearings (28). A generally vertical support brace (25) positioned parallel to and in close spaced apart relationship relative to the post (2) has one end fixed to the proximal end of the rail (38) and the other end fixed to the rolling block (27). The vertical brace (25) that ensures rigidity to the system maintains the rolling block (27) at a predetermined distance away from the rail (38).

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A small carriage (50) is installed inside the rail (38) to allow the load to move freely along the rail (38) via a carriage displacement unit. As illustrated in figures 3b, 7 and 8, the small carriage 50 comprises two generally coplanar pulleys (11) turning around an axis (13) around which is disposed cable (29). The carriage displacement unit includes a [A] wheel (12) [is] disposed on each side of the carriage (50). These generally coaxial wheels (12) are placed on rolling surfaces (17), for example a pair of hard steel strips disposed inside the rail (38). A bearing (14) is fixed to a vertical axis (16) to insure the alignment of the carriage within rail (38).

One end of cable (29) is attached to ~~[counter]~~weight (5). Cable 29 then is wrapped partially around one of the carriage pulley (11 [43]). Cable (29) then goes down to an object attachment member such as an attachment block (30) to which a hook, pincer or other means to attach a load is fixed. Cable (29) is then partially wrapped around a pulley within attachment block or member (30) (see figure 8) before returning to the second pulley (11) in the small carriage (50). From there, cable (29) reaches the other end of the rail (38) where it is attached to a cap (19) or other similar means.

Attachment block (30) also preferably is used as a small weight to ensure that cable (29) is maintained in tension such that it will not easily fall off from pulleys (11) ~~[and (43)]~~.

In the embodiment shown in the figures, the bottom of the post (2) is welded to a triangular base (1) anchored to the floor with (for example concrete anchors (3, 34) cast in epoxy). However, other known means may be used. The post (2) could also be fixed to a mobile base provided means are used to ensure that the post remains substantially vertical.

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A sealing member is preferably made out of two ~~[Two]~~ seals in the form of plastic rings (6) are installed on top and bottom of the ~~[counter]~~weight (5) to ~~[(5)]~~ prevent friction between the piston/~~[counter]~~weight (5) and the interior of the post (2). They are configured to let air or other gazes leak at a predetermined rate, depending on the need.

A weight displacement system such as a valve (33) allows the control, the inflow of pressurized air stored in a reservoir or generated by a compressor (not shown) within the post (2) under the ~~[counter]~~weight (5) so as to lift the ~~[counter]~~weight.

The predetermined air flow passing through the seal (6) around ~~[counter]~~weight (5), ~~[a]~~ valve (33) or other similar means or a combination thereof allows the control of the outflow the removal of the air under the ~~[counter]~~weight (5) so as to allow it to be lowered since the weight has a mass sufficient to lift the object.

Weight ~~[Counterweight]~~ (5) preferably has the following characteristics:

1. The ~~[counter]~~weight also acts as a piston.
2. Its rising movement is made possible with low air pressure at four pounds per square inches (4PSI).
3. The sealing principle of the ~~[counter]~~weight (piston) is to use air friction when it is moved through a small opening or crack (not shown). This principle allows the creation of air pressure below the piston using very little air.
4. Another advantage with this principle is the fact that the small air leak created causes the piston to stay centered in the tube and eliminates the

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wearing effect between the [counter]weight (5) and the interior of the post (2).

5. Along with insuring guiding and sealing, the use of this leaking system eliminates the need to pressurize the top of the piston or the use of an air exhaust valve. This system requires only the reduction or closing of the air intake to allow the [counter]weight to lower simply by gravity thus raising the object.

The [counter]weight (5) may be of variable weights. In such a case, it may be equipped with a trap or other known means on the bottom that allows rapid emptying. This container is preferably open on top. A tank installed on top of the apparatus can be filled with granular material or liquid using quiet moments. A trap or other known means on its bottom is used to fill the [counter]weight container as required.

The granular material or liquid can be raised to the tank [thank] by using a ¼HP small conveyor system with jars or buckets in a continuous movement.

Management of the [counter]weight can be made possible by using liquids (water, oil, mercury) or granular material (sand, steel balls, polymeric balls). If mercury is chosen, everything must be done in closed circuit in order to avoid possible environment contamination. It must be noted that mercury has the advantage of being very compact although extremely expensive.

A piece of rubber (7) bolted or otherwise attached to the bottom of the [counter]weight eliminates impacts when lowering.

OPERATION

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This equipment is a lifting arm (38) allowing easy handling of any solid object through an attachment block (30) which can be held by a suction disc, a magnet, a hook or any other holding system. When a 12 foot arm is used, the operator can handle the object within a diameter of 24 feet and controls the lifting and lowering by a remote control either wireless or connected. The stand on which the remote control is installed is also preferably used as a handle for the operator at the base of the lifting [holding] system. The lifting [holding] system can be of any applicable shape.

Using a melamine-coated sheet as an example, the operator inserts air under the [counter]weight (5). As a result, the holding system (in this case the suction disk) lowers on top of the sheet. Once the sheet is appropriately held, he/she releases the air and the [counter]weight is allowed to lower with the effect of gravity thus lifting the sheet. The operator can then move the sheet where required and reinsert air under the [counter]weight to force it to raise thus lowering the sheet. Finally, he/she releases the sheet and is ready for another manoeuver.

The equipment shown in the figures is designed to handle small charges varying from 50 to 150 lbs. However, it is possible to build an apparatus to lift heavier loads by making the necessary changes to the [counter]weight (5) and insuring that the other components are properly sized.

The [A-counter]weight (5) which also acts as a piston is placed inside the vertical post (2). The piston (5) may move up and down, preferably under pressure created by a gas or a fluid underneath the piston. It is also possible to use a variable weight [counterweight] (5). For example a container having an open topside and a valve or tray on its underside. A fluid such as a liquid, or a granular substance and preferably within such elements as synthetic or natural oil, mercury, water, sand, metal, glass or polymer beads, etc.[...] may be introduced in the container to create the required mass.

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The aforementioned piston (5) being firmly held by a cable (29) to the carriage (50) moving in or on and along the lateral arm (38) and forcing the attachment block [system] (30) to remain at the same distance from the carriage (50) no matter its position along [on] the arm (38).

Although a preferred embodiment of the invention has been described in detail herein and illustrated in the accompanying figures, it is to be understood that the invention is not limited to this precise embodiment and that various changes and modifications may be effected therein without departing from the scope or spirit of the present invention. --

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IN THE CLAIMS:

Please add new claims 43-48.

Please amend pending claims 9-13, 15-19, and 34-36 as follows:

-- 1.-8. (cancelled)

9(currently amended). System for lifting and moving an object from one point to another, said system comprising:

- a. a partially hollow [vertical] post having a generally vertical axis;
- b. a [counter]weight disposed within said post;
- c. a weight displacement system for longitudinally and upwardly displacing [first means allowing] the [counter]weight relative to said post;[to move vertically.]
- d. a lateral arm rotatably connected [pivotally-held] to said [vertical] post for rotation about said vertical axis and including [comprising] a [first] proximal longitudinal end located near said post and a [second] distal longitudinal end located away from said post;
- e. a cable having one end attached to said [counter]weight and the other end attached to said distal end of the lateral arm;
- f. a carriage connecting to [supporting] said cable;
- g. a carriage displacement unit for [second means allowing the] longitudinally displacing [displacement of] the carriage relative to [along] said lateral arm; and
- h. an object attachment member connecting to said cable for attaching the object thereto, said weight having a mass sufficient to lift the object supported by said cable when being downwardly displaced by gravity relative to said post [means to support said load attached to said cable].

10(currently amended). [A-system] System as described in claim 9 comprising at least one [or more longitudinal] elongated support[s] having one end

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moveably connected to said post and the other end fixed to said lateral arm.

11(currently amended). ~~[A system]~~ System as claimed in claim 9 further comprising an arm connecting system mounted on [wherein] said [first] proximal end [and] of said lateral arm for rotatably connecting said lateral arm to said post about [is held to the post by means allowing it to pivot around] the vertical axis thereof [said post].

12(currently amended). System as claimed in claim 9 wherein said lateral arm is rotatably connected to [can pivot 300° around] said post for 360° [in a continuous] movement therearound.

13(currently amended). System as claimed in claim 9 wherein said ~~[counter]weight~~ also constitutes a piston and said weight [first] displacement system [means] comprise a pressurized or compressed fluid.

14(previously added). System as claimed in claim 9 wherein said post is used as a compression chamber.

15(currently amended). System as claimed in claim 14 wherein the pressure in said compression chamber is equal or less than about four pounds per square inch (4 PSI).

16(currently amended). System as claimed in claim 13 wherein said weight [first] displacement means comprise pressurized air.

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17(currently amended). System as claimed in claim 16 wherein the air pressure in said post is equal or less than about four pounds per square inch (4 PSI).

18(currently amended). System as claimed in claim 9 wherein the ~~[counter]~~weight is also a piston comprising sealing member ~~[means]~~ between the piston and the post and said weight ~~[the first]~~ displacement system ~~[means]~~ comprise pressured air in the portion of the post located under the piston.

19(currently amended). System as claimed in claim 18 wherein said sealing member ~~[means]~~ comprise an opening having a predetermined area allowing air to escape there through.

20.-33. (withdrawn).

34(currently amended). System as claimed in claim 9 wherein said carriage displacement unit includes ~~[lateral arm comprises]~~ a rail connected to said lateral arm for displacement of ~~[on which]~~ said carriage therealong ~~[is placed]~~.

35(currently amended). System as claimed in claim 34 ~~[9]~~ in which said carriage displacement unit movably supports ~~[is provided with means allowing]~~ the carriage ~~[to move]~~ along said rail while maintaining ~~[and allowing]~~ said object attachment member ~~[supporting means to remain]~~ at a constant distance relative to ~~[from]~~ said carriage during displacement of said carriage along said rail ~~[no matter its position on said lateral arm]~~.

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36(currently amended). System as claimed in claim 35 in which said carriage displacement unit [~~second displaceable means~~] comprise a plurality of pulleys.

37.-42. (withdrawn).

43(new). System as claimed in claim 9 wherein said lateral arm is oriented in a generally perpendicular relationship relative to said post.

44(new). System as claimed in claim 9 wherein said lateral arm is rotatably connected to said post for unlimited continuous movement therearound about said vertical axis.

45(new). System as described in claim 10 wherein said one end moveably connected to said post is rollably mounted thereon so as to move in a tangential direction relative thereto about said vertical axis.

46(new). System as described in claim 45 wherein said one end moveably connected to said post is attached to a rolling block, said rolling block being in rolling engagement with said post so as to roll in a tangential direction relative thereto about said vertical axis.

47(new). System as claimed in claim 35 wherein said carriage displacement unit includes two rollers engaging said rail, said two rollers being positioned in a coaxial relationship relative to one another.

48(new). System as claimed in claim 36 wherein said carriage displacement unit includes two pulleys engaged by said cable, said two pulleys being positioned in a coplanar relationship relative to one another. --

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